

PROWAG: Status and Common ADA Right-of-Way Issues

**Purdue Road School
March 12, 2014**

Presented By:

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Senior Planner/ADA Specialist



Agenda

- Discussion of ADA and PROWAG's History and Status
- PROWAG Requirements/Standard
 - ✓ Pedestrian Access Route (PAR)
 - ✓ Curb Ramps and Blended Transitions (including DWP)
- Questions and Answers (Please hold to the end)

Disclaimer

The content provided in this seminar is for informational and educational purposes only. Neither the content nor delivery of the content is or shall be deemed to be legal advice or a legal opinion. The audience cannot rely on the content delivered as applicable to any specific circumstance. The information provided is not a substitute for professional legal advice.

Pedestrians with Disabilities

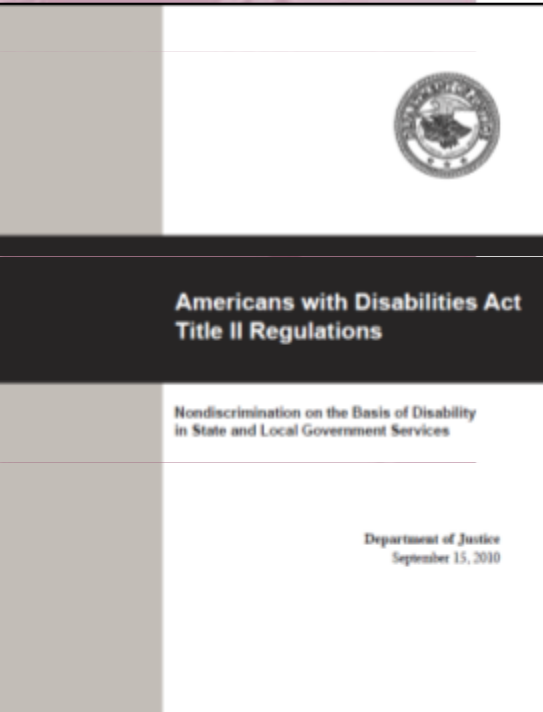
- ROW design standards and guidelines are developed with the needs of people with ALL disabilities considered
- Emphasis is generally concentrated on:
 - ✓ Mobility impaired
 - ✓ Vision impaired
- Can conflict!



Applicability of ADA to Local Units of Government

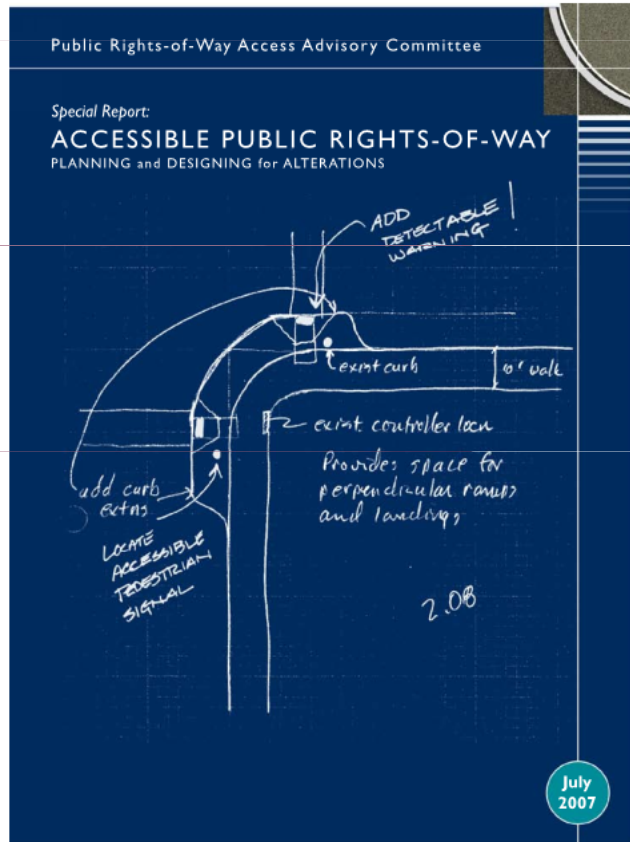
• Title II - Public Services

- No qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any public entity.
- Requires a **self-evaluation** of programs, facilities, current services, policies, and practices, and the effects thereof, that do not or may not meet the requirements of this part and, to the extent modification of any such services, policies, and practices is required, the public entity shall proceed to make the necessary modifications.
 - *Facility* means all or any portion of buildings, structures, sites, complexes, equipment, rolling stock or other conveyances, roads, walks, passageways, parking lots, or other real or personal property, including the site where the building, property, structure, or equipment is located.

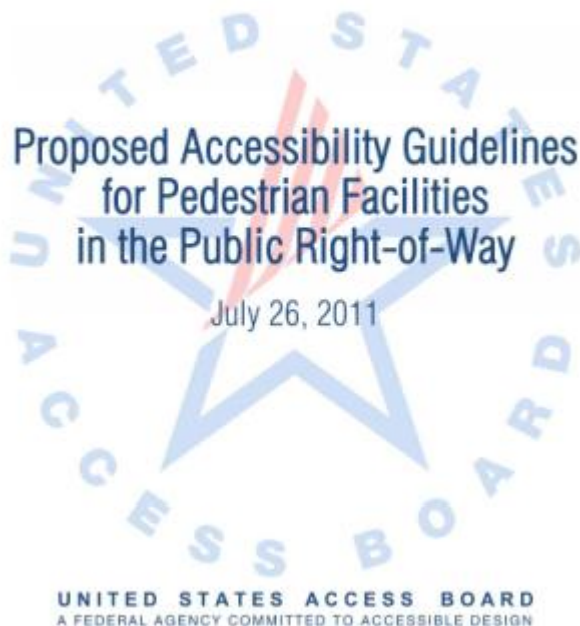


History of Right-of-Way Guidance

- 1991 ADA standards were primarily for buildings and sites, were not easily applied to ROW features
- Access Board started rulemaking in 1999, established the Public Rights-of-Way Access Advisory Committee (PROWAAC), published initial recommendations in 2000
- Original Notice of Availability of draft guidelines issued June 17, 2002
- Over 1,400 comments were received
- Led to modifications and issuance of 2nd draft on November 23, 2005 (PROWAG)
- PROWAAC continued improving on the draft 2005 guidance



Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way



- New Look and New Title: Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (still called PROWAG)
- Updated July 26, 2011 - public comment period ended February 2, 2012
- Over 600 comments received
- Still needs to be formally adopted to become the new Federal standard (expected to occur) but is also considered best practice.
- Last word from Access Board – is to be finalized in 2014

PROWAG

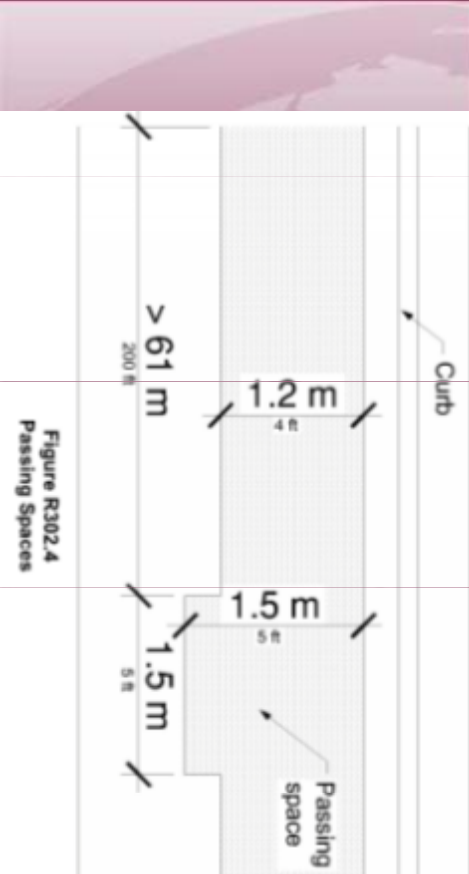


- R1 Application and Administration
- R2 Scoping Requirements
- R3 Technical Requirements
- R4 Supplementary Technical Requirements

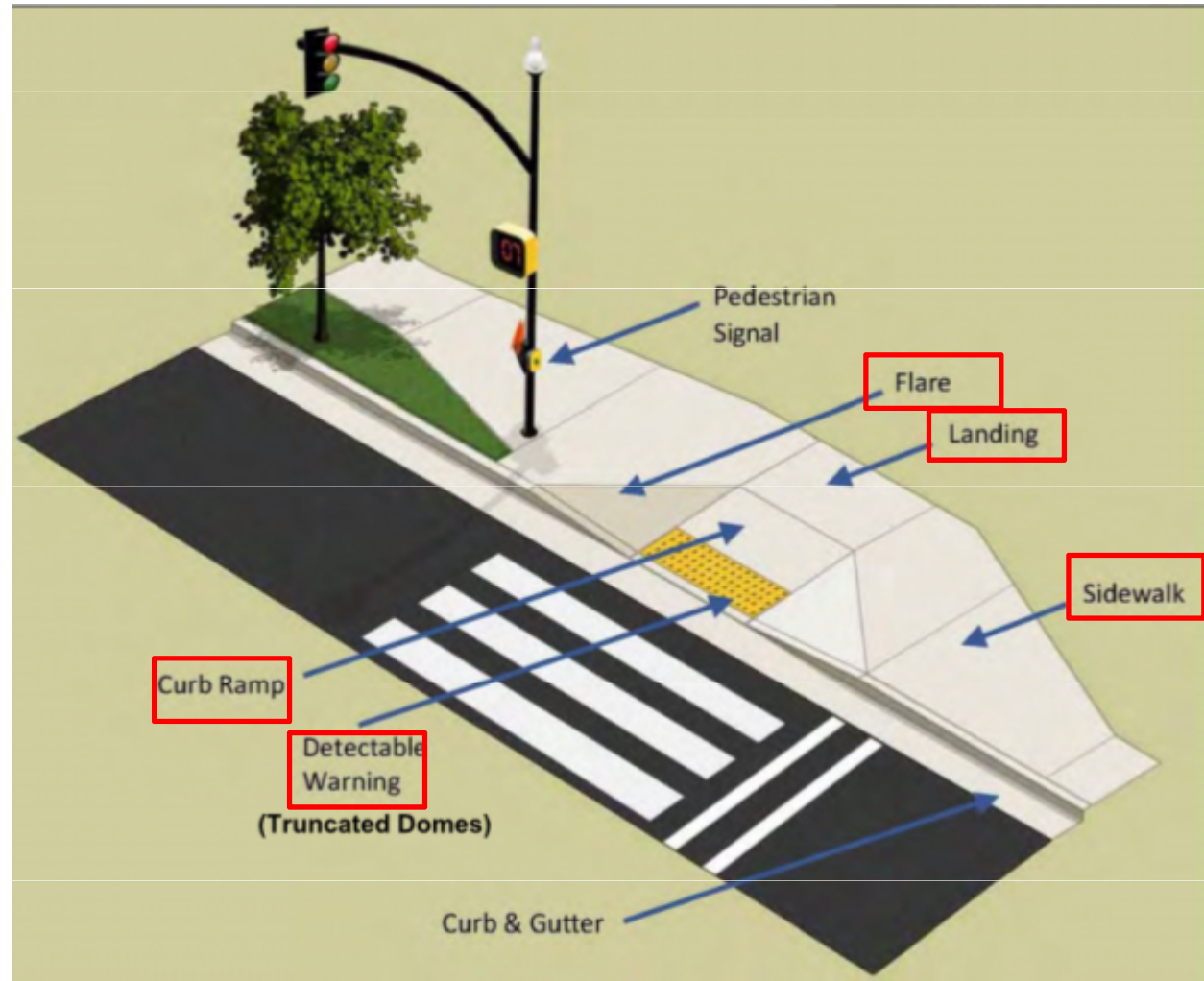
PROWAG

The guidelines cover pedestrian features in new or altered public right-of-ways. The guidelines apply to permanent as well as temporary facilities, such as temporary routes around work zones and portable toilets. Provisions in the guidelines address:

- Pedestrian Access Routes (including sidewalks, street crossings, curb ramps/blended transitions)
- Detectable Warning Surfaces
- Medians and Traffic Islands
- Overpasses, Underpasses, and Bridges
- Pedestrian Signals
- Signs
- Roundabouts
- Toilet Facilities
- On-Street Parking and Passenger Loading Zones
- Transit Stops and Shelters
- Street Furniture and Other Elements



ROW Accessible Pedestrian Features



Accessibility Obligations

- New construction is required to meet a standard (must be consistent with the one used)
- Alterations to existing facilities must be accessible to the maximum extent feasible within the scope of the project (**REQUIRE** curb ramps)
- Existing facilities that have not been altered can not deny access to persons with disabilities (i.e., missing curb ramps need to be installed where crossings exist)

Alterations

- In alterations, it may not be possible to meet all of the accessibility requirements
- Follow new construction provisions to the extent possible (procedures in place for variances)
- INDOT Design Memorandum No. 14-03 Policy Change, issued February 21, 2014
 - June 28, 2013, the DOJ/DOT Joint Technical Assistance on the Title II of the ADA issued guidance

Alterations	Maintenance
Open-Graded Surface Course	Crack Sealing & Filling
Mill & Fill / Mill & Overlay	Surface Sealing
Hot-In-Place Recycling	Chip Seals
Microsurfacing / Thin Lift Overlay	Slurry Seals
Addition of New Layer of Asphalt	Fog Seals
Asphalt & Concrete Rehab & Reconstruction	Scrub Sealing
New Construction	Joint Crack Seals
	Joint Repairs
	Dowel Bar Retrofit
	Spot High – Friction Treatments
	Diamond Grinding
	Pavement Patching

Pedestrian Access Route (PAR)

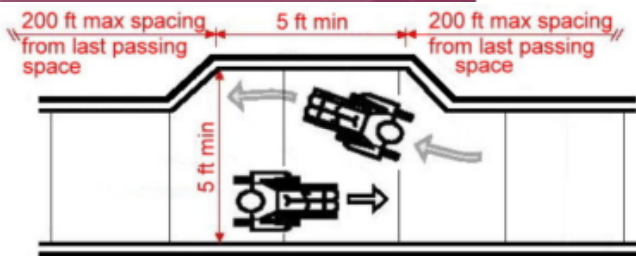
Pedestrian Access Route (PAR)

- Pedestrian Access Route (PAR) – all pedestrian facilities within the ROW (sidewalks). Must be comprised of a material that is stable, firm, and slip resistant! Most gravel, bare soil, turf, some wood, etc. do not meet the criteria. Firmness can be measured.
- Shared use pathways currently going through rule-making as well (<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/shared-use-paths/supplemental-notice>). Published in the *Federal Register* on February 13, 2013 received 61 comments.

Pedestrian Access Route (PAR)

Pedestrian Access Route (PAR) – all pedestrian facilities within the ROW (sidewalks).

- Must be 48" wide minimum, it is preferable that the 48" zone be continuous.



4 feet minimum exclusive of the curb

Pedestrian Access Route (PAR)

- PAR is reserved for pedestrians and must be clear of obstructions and protruding objects



Pedestrian Access Route (PAR)

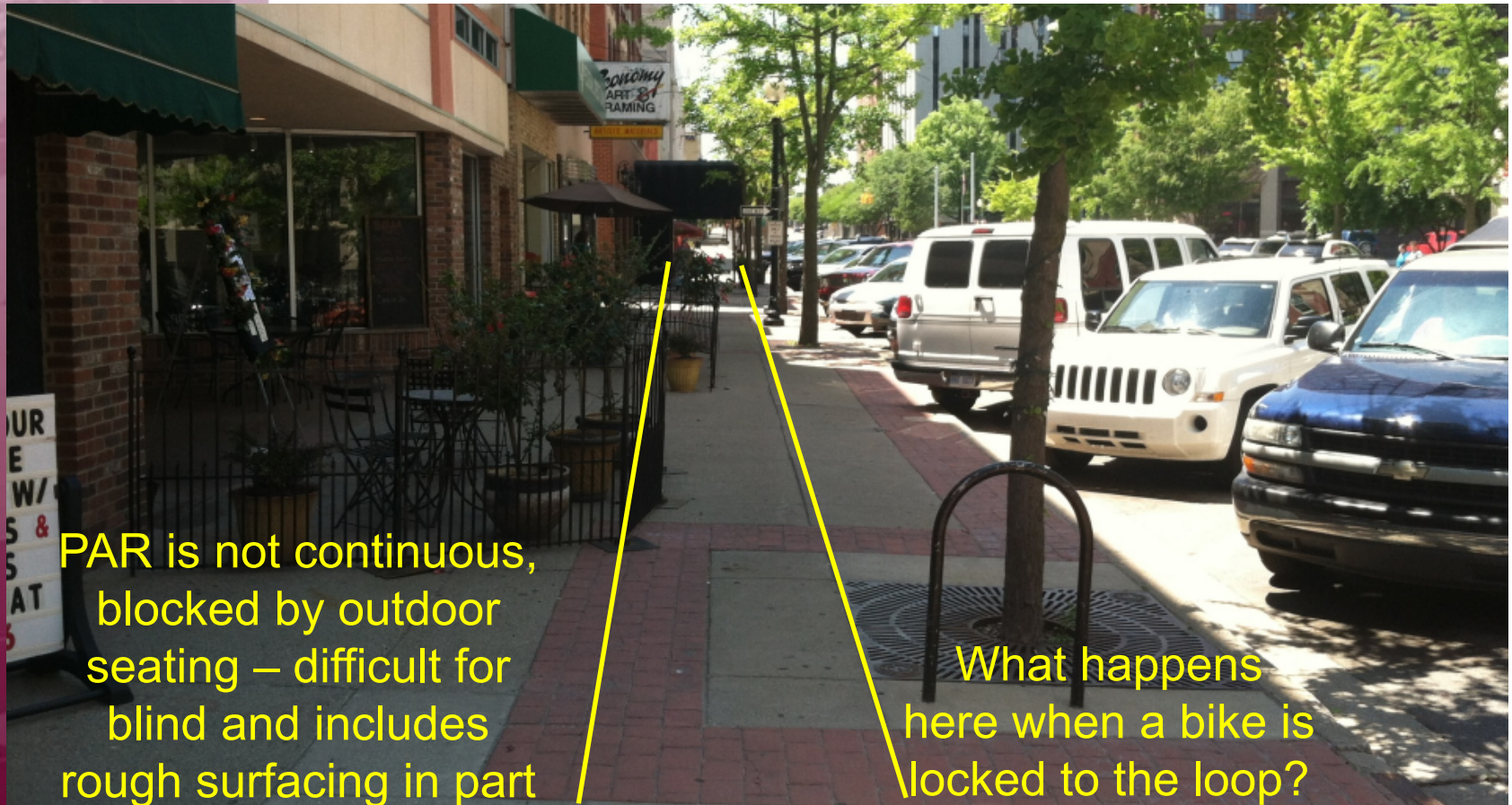
- PAR is reserved for pedestrians and must be clear of obstructions and protruding objects

What about
vehicle
mirrors
protruding
into PAR?



Pedestrian Access Route (PAR)

- PAR is reserved for pedestrians and must be clear of obstructions and protruding objects



Pedestrian Access Route (PAR)

2011 Draft Standards for ROW Facilities

- **Running Slope:** must be less than 5% or the slope of the existing adjacent roadway, whichever is greater
- **Cross Slope:** cannot exceed 2%



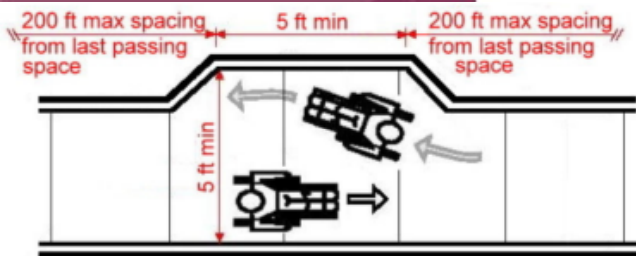
The running slope of the PAR may match, BUT NOT EXCEED, that of the adjacent roadway.

(PROWAG 2011 change)

Pedestrian Access Route (PAR)

2011 Draft Standards for ROW Facilities

- Running Slope: must be less than 5% or the slope of the existing adjacent roadway, whichever is greater
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- **Width:** 48" minimum, 60" preferred. If longer than 200 feet and < 60" width, must provide 60" x 60" passing spaces



4 feet minimum exclusive of the curb

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- **Separations/gaps:** cannot exceed 1/2"



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- Separations/gaps: cannot exceed $\frac{1}{2}$ "
- **Displacements:** $\frac{1}{4}$ " max. (or $\frac{1}{2}$ " if beveled). Can be significant safety hazard to all users!

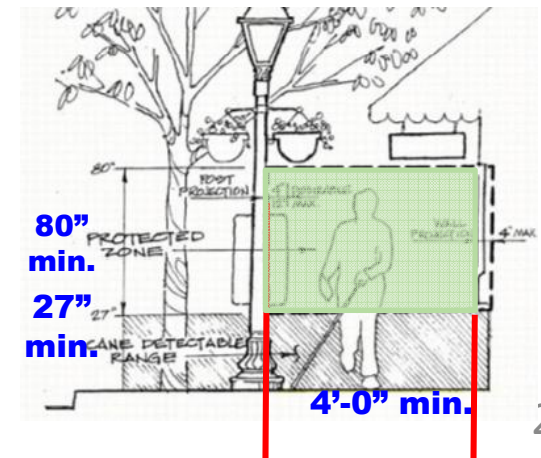
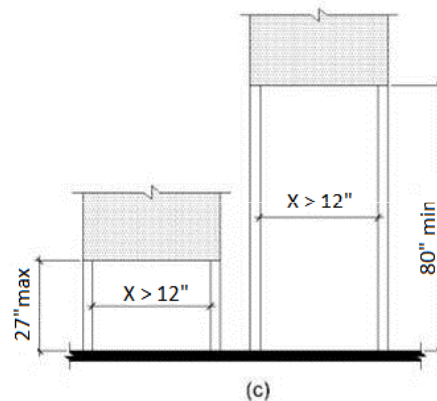
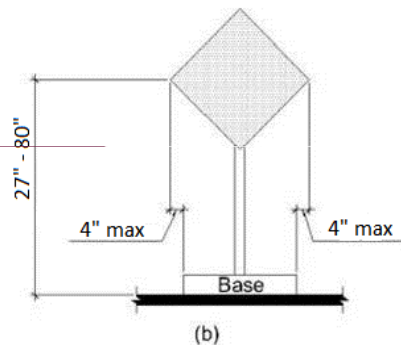
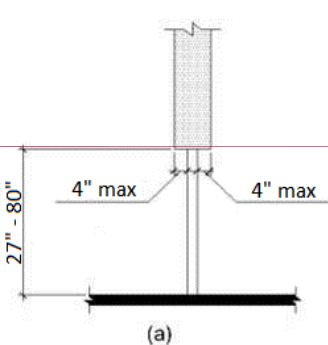


Pedestrian Access Route (PAR)



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- **Protrusions:** cannot extend over 4" into PAR between 27"-80"



Pedestrian Access Route (PAR)



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- Protrusions: cannot obstruct PAR or protrude over 4" into PAR between 27"-80"
- **Obstructions:** cannot provide an obstacle that reduces the PAR width to less than 48". Most common obstructions include vegetation, utility poles, signs, overhanging cars, etc.



Pedestrian Access Route (PAR)

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- Obstructions: cannot provide an obstacle that reduces the PAR width to less than 48". Most common obstructions include vegetation, utility poles, signs, overhanging cars, etc.
- **Drainage Issues:** PAR should not have any ponded water



Pedestrian Access Route (PAR)

- What happens when PAR is difficult to traverse or unpredictable?
 - Disabled pedestrians generally ride in the street!



Railroad Crossings

- 2011 Draft Standards for ROW Facilities

- Railroad crossings

- Allow 2½" gap on non-freight and 3" for freight tracks at rails
 - Require detectable warnings 6' min and 15' max from nearest rail for at-grade pedestrian crossings. If pedestrian gates are provided, DWP must be immediately adjacent to the gates
 - RR is responsible if within their ROW (good luck with that!)

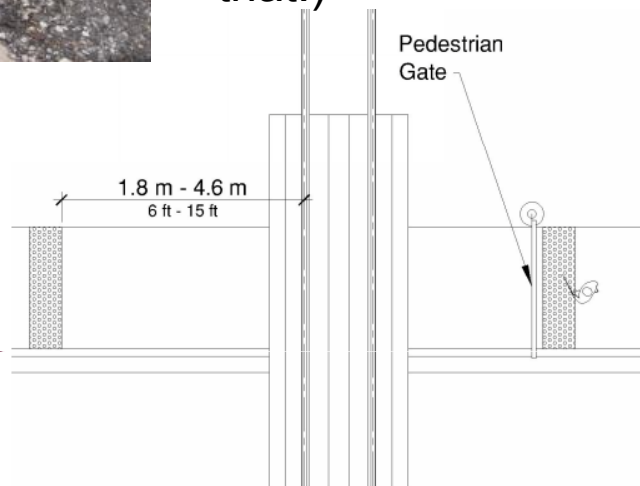


Figure R305.2.5
Pedestrian At-Grade Rail Crossings

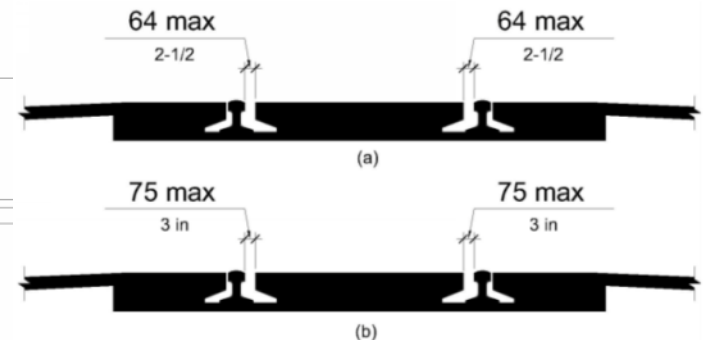


Figure R302.7.4
Flangeway Gaps

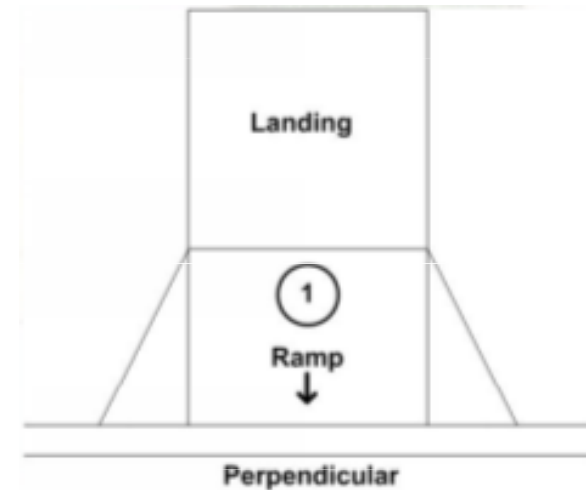
Curb Ramps

Types of Curb Ramps

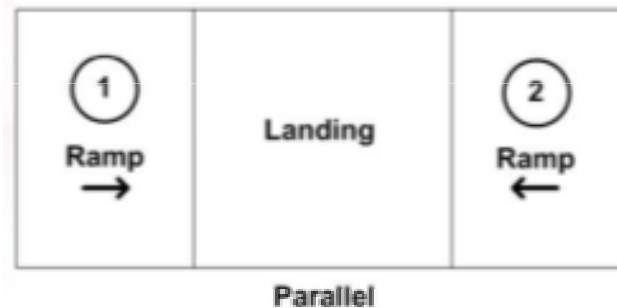
3 Broad Categories

Determined by orientation of ramp compared to the adjacent curb

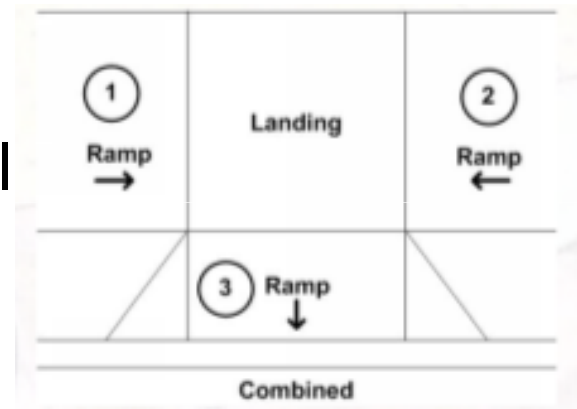
- Perpendicular Ramp
 - 1 Ramp



- Parallel Curb Ramps
 - 2 Ramps



- Combination of Perpendicular & Parallel Ramps
 - 3 Ramps



4th Category is Diagonal, which will not be allowed in new guidelines except in hardships

Curb Ramps

2011 Draft Standards for ROW Facilities

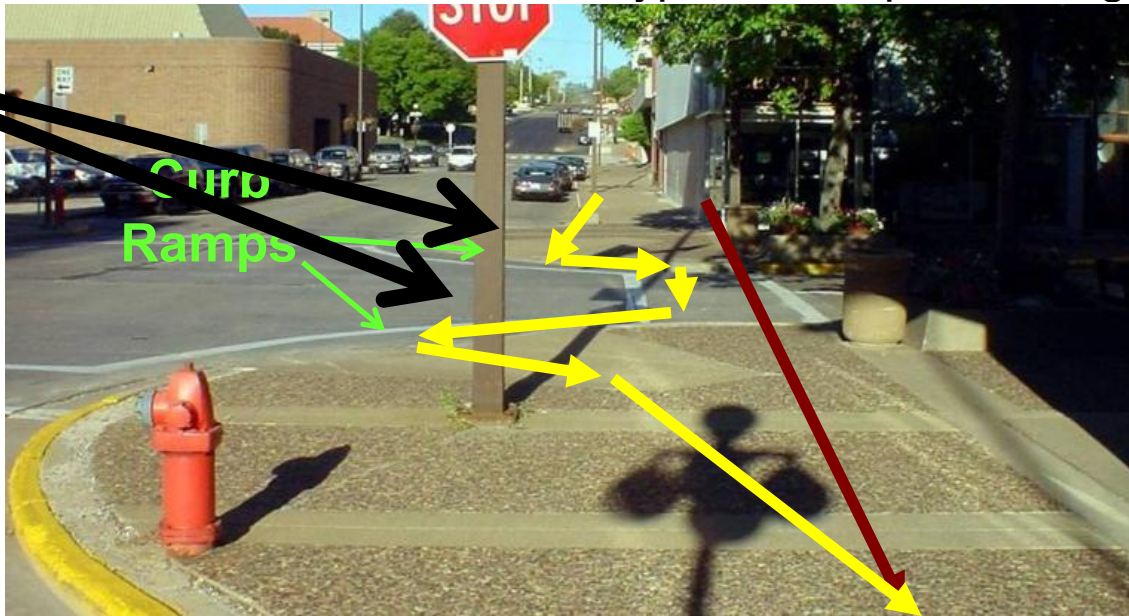
- Curb Ramps – by definition, a ramp is a sloped pedestrian route at a street crossing location that is between 5.0% and 8.33% slope
 - If less than 5.0% is considered a blended transition.

Curb Ramps

Illustrates
one of the
many
issues with
diagonal
ramps!!

2011 Draft Standards for ROW Facilities

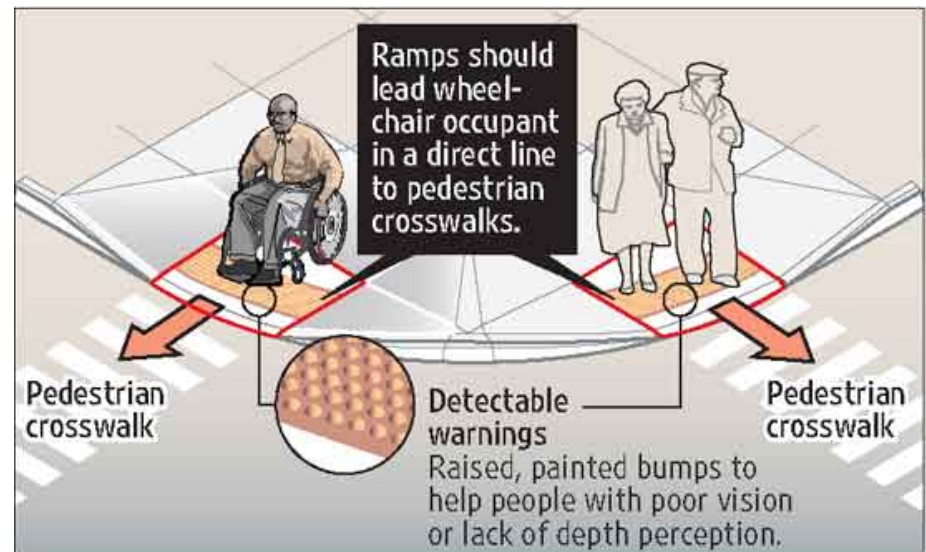
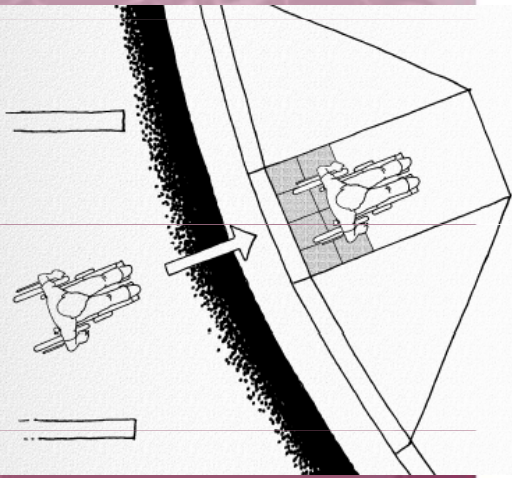
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 - Curb ramps are essential to providing access to and from sidewalks when crossing a street. Determined by comparing the ramp run direction to the curb. New draft guidelines require 2 ramps per corner when constructed or altered later. Several types of ramps/crossings:



Curb Ramps

2011 Draft Standards for ROW Facilities

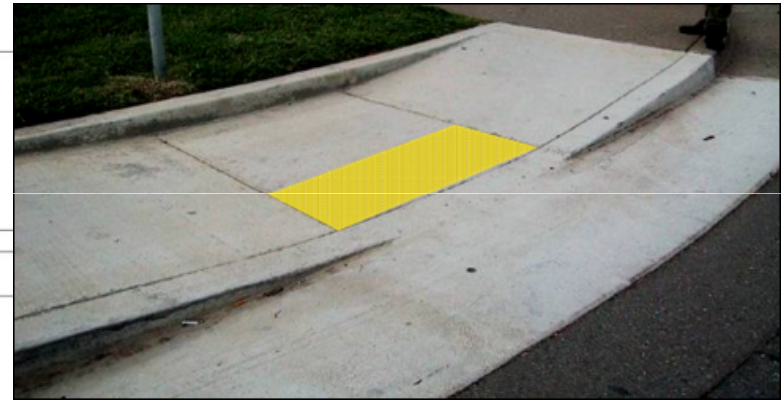
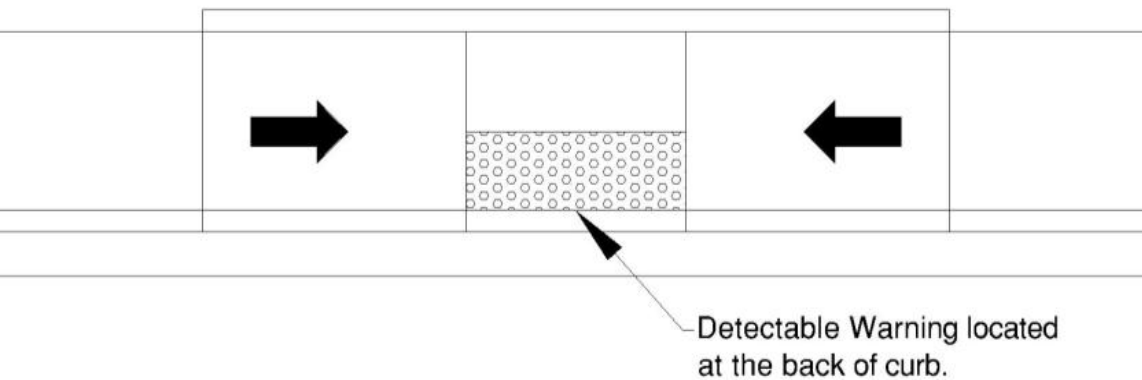
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 - **Perpendicular:** are at 90 degrees to curb and preferred!!



Curb Ramps

2011 Draft Standards for ROW Facilities

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 - **Parallel**: are parallel to curb



Curb Ramps

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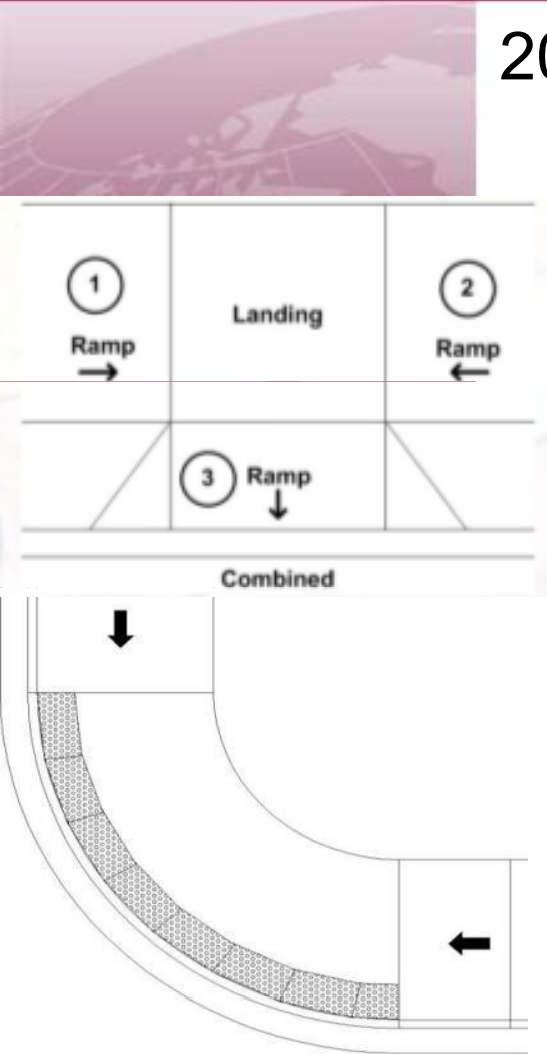
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 - Perpendicular: are at 90 degrees to curb
 - Parallel: are parallel to curb
 - **Diagonal**: diagonal to curb (usually serve both directions, are not permitted in new guidelines except in unusual circumstances)



Curb Ramps

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 - Perpendicular: are at 90 degrees to curb
 - Parallel: are parallel to curb
 - Diagonal: diagonal to curb(usually serve both directions)
 - Combination: include more than 1 of the above, can be excellent way to retrofit an existing ramp
 - **Blended Transition**: are less than 5% and can be any of the above as well. Key thing with blended transitions – they don't always require landings at the top or bottom!!

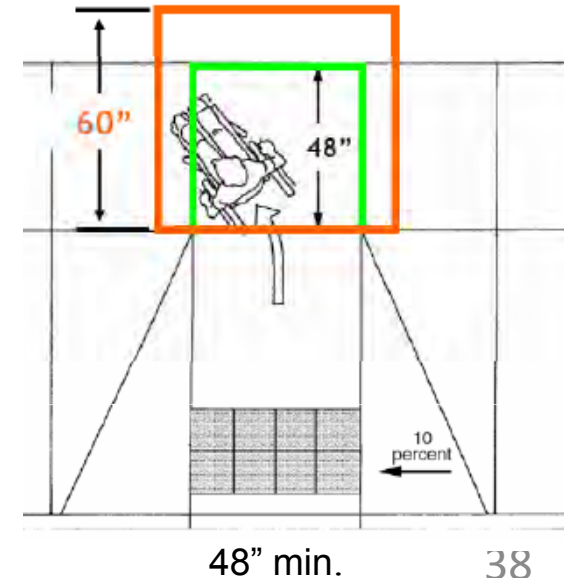
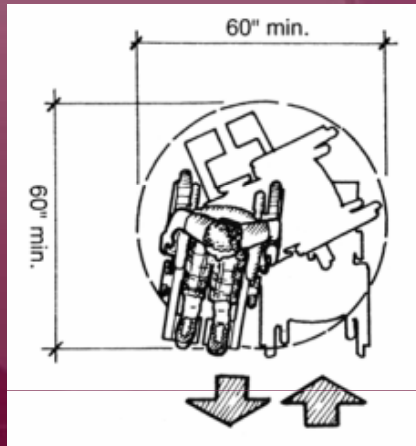
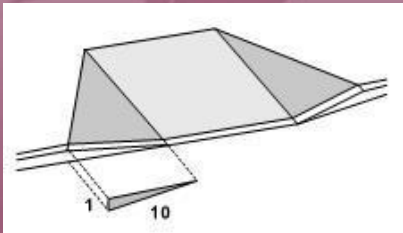
Curb Ramp/2011 PROWAG Basics

- Minimum 4' wide (= PAR) with a maximum cross slope of 2.0%
- If longitudinal slope exceeds 5.0%, landing(s) must be provided
- Maximum ramp slope is 8.3%, flares 10%
- Maximum curb ramp length is 15 feet
- Landing dimensions 4' X 4' minimum (full width of ramp is required) with a maximum of 2.0% slope in all directions
- Blended Transitions do not require a landing UNLESS they exceed 2% in any direction and there is a change in direction
- Slopes and dimensions are absolute! PROWAG does not allow any tolerances for exceeding these maximums!

Curb Ramps

2011 Draft Standards for ROW Facilities

- **Side Flare Slope:** where required cannot exceed 10%
 - Side flares required only when in the pedestrian circulation area (not the same as PAR!).
- **Ramp Width:** 48" minimum
- **Top and Bottom Landing Slopes & Dimensions:** 48"x 48" required, 60" preferred
 - The level (2% max. slope in any direction) area at the top and/or bottom of each ramp that facilitates **a change in direction.**
 - Minimum: 48" x 48"
 - Recommended: 60" x 60"



Curb Ramps

- Review of ROW Facilities
 - Separations/gaps: cannot exceed $\frac{1}{2}$ "
 - Don't have drainage structures within ramps!!



Curb Ramps

- Review of ROW Facilities
 - **Displacements:** $\frac{1}{4}$ " or $\frac{1}{2}$ " if beveled
 - Typically between BOC and ramp if not doweled!



Curb Ramps

- Review of ROW Facilities

- **Detectable Warning Plate:** 24" deep, full width of ramp, contrasting color
- Provide warning to the visually impaired that they are about to enter a hazardous area.
- Required at all street crossings, railroad and boarding platforms. Driveways?? RARELY!!
- Raised domes with in-line or radial arrangement
- 24" min. and full width of curb ramp
- Contrasting in color
- More to come



Curb Ramps

- Review of ROW Facilities
 - **Protrusions/Obstructions:** cannot obstruct ramps or protrude over 4" into PAR between 27"-80"



Curb Ramps

- Review of ROW Facilities
 - **Drainage Issues:** should not pond water



Detectable Warning Devices



Detectable Warning Devices (FHWA Memo)

Provide warning to the visually impaired that they are about to enter a hazardous area.

- Required at all street crossings, railroad and boarding platforms - driveways??
- Raised domes with in-line or radial arrangement
- 24" min. and full width of curb ramp
- Contrasting in color

Detectable Warning Devices

Advisory R208.1 Where Required. Detectable warning surfaces should not be provided at crossings of residential driveways since the pedestrian right-of-way continues across residential driveway aprons. However, where commercial driveways are provided with yield or stop control, detectable warning surfaces should be provided at the junction between the pedestrian route and the vehicular route.

Detectable Warning Devices

Detectable warning surfaces are not intended to provide wayfinding for pedestrians who are blind or have low vision. Wayfinding can be made easier by:

- Sidewalks that provide a clear path free of street furniture;
- Visual contrast between walking and non-walking areas (e.g., planted borders);
- Route edges that are clear and detectable by cane;
- Direct pedestrian street crossings and curb ramps that are in-line with direction of travel;
- Small corner radiuses that permit pedestrian street crossings to be as short and direct as possible;
- Orthogonal intersections that facilitate navigation using parallel and perpendicular vehicle sound cues;
- and barriers where pedestrian travel or crossing is not permitted.

Detectable Warning Devices

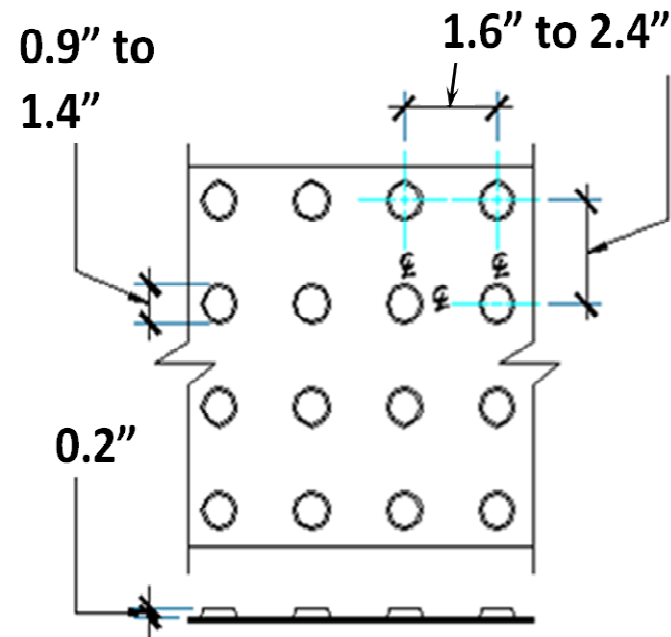
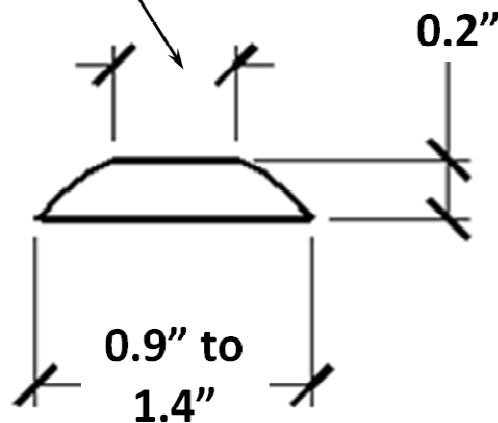


**This is not
contrasting!**

Detectable Warning Devices

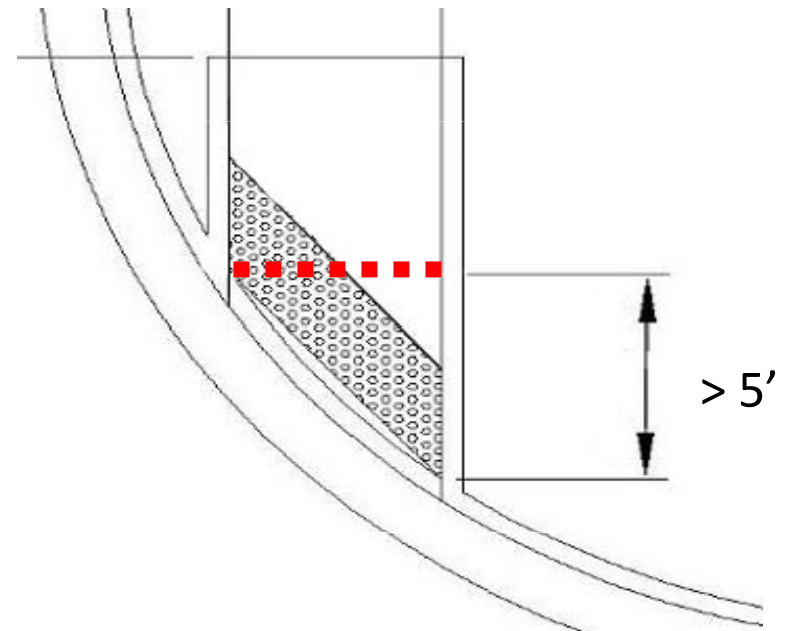
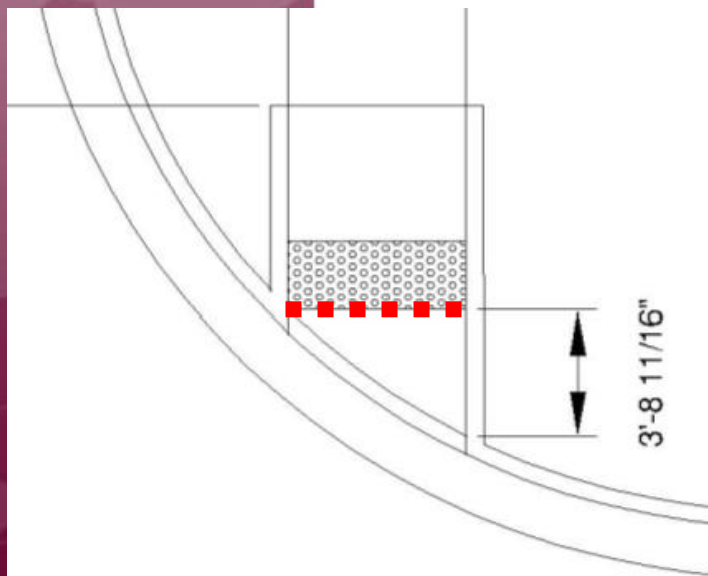
Due to their distinctive design, truncated domes are detectable by cane and underfoot

50% to 65% of
base



Detectable Warning Devices

- Place DW on curb ramp at grade break if level landing at bottom of ramp is less than 5' deep.
- Place DW on bottom landing if landing is more than 5' deep at any point.

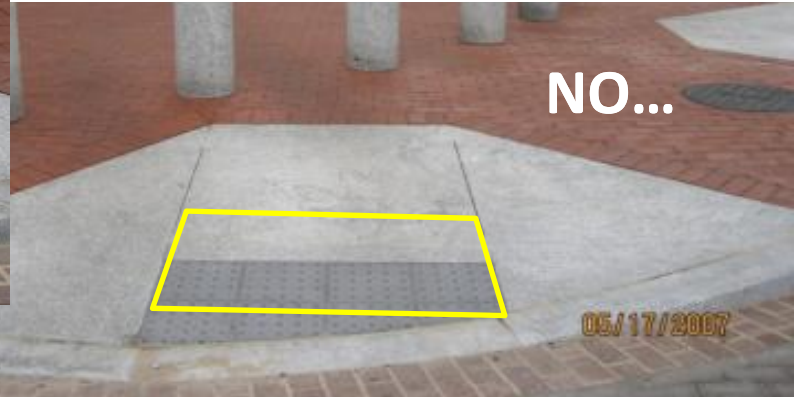


Curb Ramps & Blended Transitions

YES...



NO...



Detectable Warning Devices

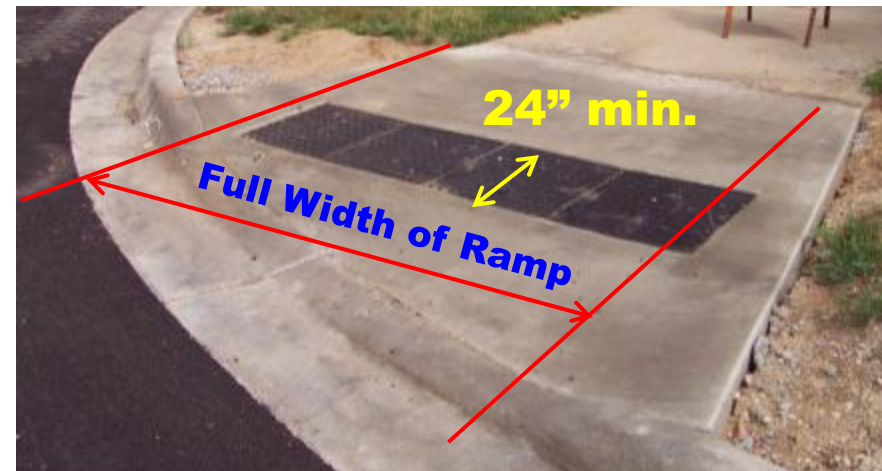


Pedestrian refuge islands DW required only if island is 6' or larger in width – full width, slopes, etc. requirements same as ramps

Detectable Warning Devices



- Truncated domes used as a tactile equivalent for vision impaired/blind pedestrians to indicate a curb line.
- Contrasting color aids in better visibility for all users, including colorblind or low visioned.
- Be wary of overuse.
- Depth: 24" Min.
- FULL Width of Ramp
(accessible route)



Detectable Warning Devices

- Be wary of overuse. Not intended for use at driveways EXCEPT those that are high volume!! Becomes confusing.



Detectable Warning Devices

- Be wary of overuse. Not intended for use outside the ROW (except at transit boarding platforms). Commonly used on commercial sites and interior parking lots.



Public Right-of-Way Accessible Pedestrian Features

Accessible Sidewalks Video Series

Presented by the US Access Board

Part II: Design Issues for Pedestrians with Ambulatory Impairments

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/guidance-and-research/accessible-sidewalks-video-series>



Questions??

